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Average U.S. Rotary Rig Count Tops 2,200 for 1983

With 2 weeks left to go in 1983 (as of this writing), the U.S. rotary rig count averaged 2,208 for the year. The November average, however, was 2,572, which topped the 2,500 average logged during the same month in the previous year. It was the first time that has happened since March 1982.

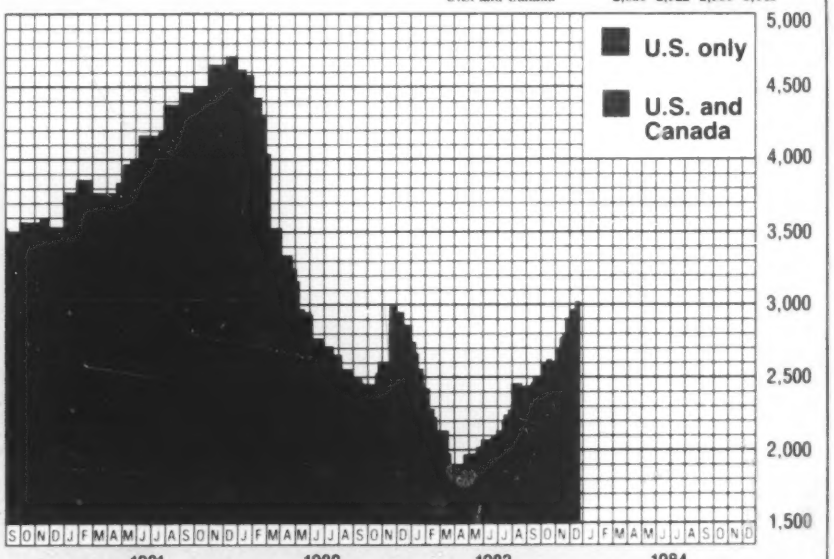
Canadian drillers also have increased activity during recent months, to the point where their year-long average approaches 200. A major boost to Canadian drilling came in the form of incentives offered by Saskatchewan last summer. They resulted in a record number of rigs at work in that province by the end of November.

The long-term outlook for Canadian drilling, however, is not too bright. The Canadian Association of Oilwell Drilling Contractors looks for rig utilization this year to be lower than 50% – not much better than last year's 42%.

Rotary rigs actually making hole in United States & Canada

As Reported To International Association Of Drilling Contractors By Hughes Tool Co.

	Nov. 21, 1983	Nov. 28, 1983	Dec. 5, 1983	Dec. 12, 1983
Alabama				
Land	15	15	13	14
Inland Waters	1	1	1	0
Offshore	1	1	0	0
Alaska				
Land	8	8	9	9
Offshore	4	4	4	4
Total	12	12	13	13
Arkansas	23	24	25	24
California				
Land	94	97	93	96
Offshore	19	21	17	20
Total	113	118	110	116
Colorado	63	65	65	66
Florida	4	4	5	7
Georgia	1	1	1	1
Idaho	2	2	2	2
Illinois	65	66	88	75
Indiana	7	7	8	5
Kansas	152	147	149	147
Kentucky	8	8	10	10
North Louisiana	29	35	36	37
South Louisiana				
Inland Waters	47	49	52	48
Land	91	103	102	95
Offshore	139	139	128	135
Total	306	326	318	315
Michigan	38	38	41	40
Mississippi	41	37	42	38
Montana	39	33	30	38
Nebraska	8	8	8	9
Nevada	1	3	4	3
New Jersey	1	1	1	1
New Mexico	83	83	76	85
New York	10	8	10	8
North Dakota	62	62	69	68
Ohio	53	68	68	59
Oklahoma	305	332	342	355
Pennsylvania	27	33	30	32
South Dakota	2	2	2	2
Tennessee	2	3	2	2
Texas				
Offshore	44	46	46	48
Inland Waters	8	9	8	7
Dist. 1-S. Central Tex.	19	19	18	21
Dist. 2-Middle Tex. Coast	46	44	46	43
Dist. 3-Upper Tex. Coast	121	121	117	110
Dist. 4-Lower Tex. Coast	99	100	107	111
Dist. 5-Northeast Tex.	28	25	25	28
Dist. 6-Far Northeast Tex.	83	85	85	86
Dist. 7B-N. Central Tex.	49	55	63	61
Dist. 7C-W. Central Tex.	68	62	72	75
Dist. 8-Far West Tex.	142	148	140	141
Dist. 8A-West Tex.	88	84	89	93
Dist. 9-North Tex.	71	74	75	83
Dist. 10-Tex. Panhandle	66	62	59	60
Total	932	934	950	967
Utah	50	53	53	56
Virginia	2	1	1	1
Washington (State)	1	1	1	1
West Virginia	32	33	21	41
Wyoming	131	131	145	145
Total U.S.	2,593	2,667	2,704	2,746
Canada	230	242	262	281
Canada-Offshore	12	13	14	16
U.S. and Canada	2,835	2,922	2,980	3,043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ABOUT THE COVER: This month's cover shows the underground well cellar at Chevron USA's Paxton drill site in Pacioma, Calif. For the full story, see page 64.

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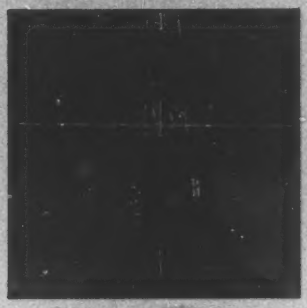

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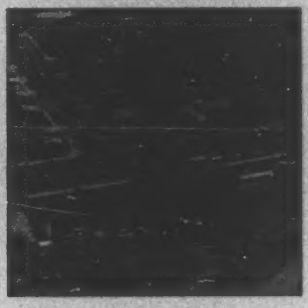

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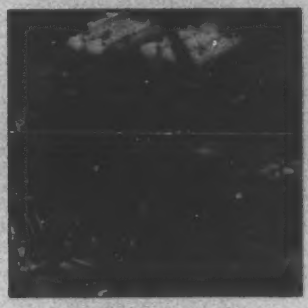

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27 Year Of Change Lies Ahead For Drillers

by Steven D. Moore, Drilling Editor. Problems that faced the drilling industry at the beginning of 1983 are the same problems the industry must grapple with in 1984. But, some positive trends are beginning to emerge.

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DEVELOPMENT DRILLING

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by Steven D. Moore, Drilling Editor. Foremost challenges in developing the Paxton drill site were to drill and produce oil within a limited, 2.7-acre spacing, and with minimum impact to the immediate environment.

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by W. B. Bleakley, Editor. Europe's largest fracturing operation, the job is believed to also be the world's largest in terms of sintered bauxite used. Near the end of the job, bauxite was being injected at 9,000 lb/min.

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U.S. Drilling Costs Down Dramatically In '83

With costs down approximately 10% to 15% more than in 1982, there couldn't be a better time than right now to drill wells, according to the Cost Study Committee of the Independent Petroleum Association of America. They add that materials and supplies are more than ample, prospects are better, and returns are up.

For these reasons, the IPAA forecasters see an upturn in drilling in the next several years, "not back to the halcyon days of 1981, but, nevertheless, up."

Their report on the U.S. supply of tubular goods reflects some of the problems of the cutback in drilling during recent years. Steel shipments are off more than 80% in the first 7 months of 1983, compared with the like period in 1982. Reported wells and footage drilled, however, are down only 15% to 20%, indicating that supplies of tubulars are coming from inventories. The problem has been compounded by a 400-ft decline in the average depth of wells drilled during the first 7 months of 1983.

The 1983 rotary rig census data prepared by Reed Rock Bit Co. indicate that 5,273 rigs are available for drilling wells to 3,000 ft and deeper. Utilization rate of these rigs was 48.2% as of August 1983.

The report found 559 rigs removed from the available list, but another 188 rigs were added to the fleet. This resulted in a net attrition for the year of 371 rigs.

A much higher percentage of nonactive rigs were found stacked in yards in 1983 rather than on location. Some 24.2% of the rigs were stacked in yards, while 27.6% were stacked on location.

The report found 441 marine rigs available, which was a decline from 505 in 1982.

A significant number of the idle land rigs are found in the major gas drilling areas. Oklahoma, south Louisiana, and the Southwestern states had 1,060 idle rigs, or 38.7% of all U.S. idle equipment.

This year's fleet is expected to be down by 400 to 500 rigs, or to approximately 4,800, and rig utilization is projected at 64.6%. The outlook is not as bright as desired, the Cost Study Committee says, but signs indicate the drilling industry is headed upward.

A limited survey made by the Direct Cost Subcommittee indicates that payments to drilling contractors dropped about 38% from January 1982 to July 1983, while the cost of purchased items fell a total of 34% over the same period. Cost reductions are believed to have stemmed from a combination of the law of supply and demand plus improved efficiency of operators, drilling contractors, and service companies.

TABLE 1. Total U.S. supply of tubular goods, rig activity, and footage drilled, as compiled by the IPAA Cost Study Committee

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	Jan. – July 1983	Jan. – July 1982	% change, 83 vs 82
Tubular goods, thousand tons													
Mill shipments	1,736	2,261	2,577	1,678	2,405	2,647	2,458	3,612	2,241	1,759	296	1,547	−80.9
Less exports	−198	−348	−430	−169	−140	−155	−285	−133	−128	−67	−5	−91	−94.5
Plus imports	140	109	217	219	487	591	457	1,036	2,389	2,180	266	1,768	−85.0
U.S. supply	1,678	2,022	2,364	1,728	2,752	3,083	2,630	4,515	6,502	3,872	557	3,224	−82.7
Rotary rigs running*	1,194	1,472	1,660	1,658	2,001	2,259	2,177	2,912	3,970	3,106	2,099	3,518	−40.3
Wells drilled	27,602	32,893	39,097	41,455	46,479	48,513	51,263	62,462	80,537	88,106	44,431	51,863	−14.3
Footage drilled, thousands of feet	138,938	153,164	178,605	185,345	215,010	231,394	243,208	288,936	366,249	401,483	189,851	244,957	−22.5
Tons oil country tubular goods per thousands of feet	12.1	13.2	13.2	9.3	12.8	13.3	10.8	15.6	17.6	9.6	2.9	13.2	−78.0
Average depth of wells	5,034	4,656	4,566	4,471	4,626	4,770	4,744	4,626	4,548	4,557	4,273	4,723	−9.5
Total													
Rotary rigs**	1,767	1,894	2,028	2,204	2,482	2,851	3,182	3,672	4,803	5,644	5,273	5,644	−6.6
Stacked rigs**	294	125	151	225	83	66	308	130	100	2,419	2,734	2,419	+13.0
Active rigs	1,473	1,769	1,877	1,979	2,399	2,785	2,874	3,542	4,703	3,225	2,539	3,225	−21.3

* Number of rigs actually drilling footage
** Excludes rigs not capable of drilling over 3,000 ft

TABLE 1. U.S. stripper well data for the past 10 years

Year	No. of wells	Production, MM bbl	Abandonments	Average daily production per well
1973	355,229	385,684	13,756	2.97
1974	366,095	411,936	13,779	3.08
1975	367,872	394,163	13,478	2.93
1976	365,733	392,191	9,916	2.93
1977	368,930	392,532	9,000	2.91
1978	374,635	391,633	8,380	2.86
1979	386,310	394,405	7,668	2.79
1980	395,176	401,095	6,614	2.77
1981	409,539	426,502	7,215	2.85
1982	416,493	441,951	9,426	2.90

U.S. Stripper Well Production Up By 15 Million Barrels

U.S. stripper oil wells produced almost 442 million bbl of oil in 1982 to register an increase of more than 15 million bbl over 1981. The increase failed to match the 25 million bbl gain credited to 1981, but it marked the fourth straight year in which stripper well production has increased in the U.S.

And it is in sharp contrast to the pre-oil-embargo days, when production reductions averaged 15 million bbl/yr.

The most recent National Stripper Well Survey, jointly published by the Interstate Oil Compact Commission and the National Stripper Well Association, says that 441,951,028 bbl of stripper oil were produced in the U.S. during 1982 by 416,493 stripper wells. By comparison, there were 409,539 stripper wells at the end of 1981, during which year they produced 426,502,365 bbl of oil. There was, therefore, a 1-year increase of 6,954 wells and an increase in production of 15,448,663 bbl.

Between 1972 and 1980, yearly abandonments of stripper wells decreased from 13,483 to 6,614. In 1981, however, abandonments increased by about 600 nationwide to 7,216. And in 1982, they increased by 2,211, to 9,426. G.E. Stahl, president of the National Stripper Well Association, attributes the increase in abandonments to decreases in oil prices, and he warns that any change in stripper well tax provisions could cause an even greater increase in well abandonments.

Price Claims Footage Record

J.A. Price and Co. of Odessa, Tex., is claiming a footage record for a 7⅞-in. drill bit that they say was run in five different wells for a footage total of 9,520. Cumulative hours came to 95, making a rate of 100.21 ft/hr and a cost per foot of 23¢.

The bit, a V537 made by Varel Manufacturing Co., was used on Price's Rig 3 while drilling for Amoco Production Co. on four wells in Ector County and one in Andrews County. Bruce Kimmell, drilling superintendent for J.A. Price, said that the formations drilled are typical of West Texas, being anhydrite to approximately 700 ft, red bed down to 1,000 ft, and salt through 2,900 ft, which was as deep as the bit was run.

Free-World Drilling Off By 258 Rigs

International rotary drilling continued to decline during October in all regions of the Free World except the South Pacific, where a strong showing by Australia contributed to a seven-rig gain over the same month in 1982.

The next best effort was turned in by the Far East, which lost only six rigs during the year.

Latin America's rig loss total came to 72, so Africa, with a decline of 88 active rigs, becomes the undisputed loss leader.

International Rotary Rig Report, prepared by Hughes Tool Co.
(Figures in parentheses indicate how many of each country's rigs are offshore rigs.)

	Oct. 1982	Sept. 1983	Oct. 1983
Africa			
Algeria	90	40	35
Angola	13(9)	10(8)	10(8)
Benin	1(1)	1(1)	1(1)
Cameroun	7(6)	5(5)	5(5)
Chad	1	0	0
Gabon	10(8)	6(6)	6(6)
Guinea	1(1)	0	0
Ivory Coast	5(5)	1(1)	1(1)
Libya	28(1)	27(2)	27(2)
Morocco	5	5	5
Niger	1	0	0
Nigeria	25(10)	16(6)	16(6)
Rep. of Congo	5(4)	4(4)	4(4)
Rep. of Zaire	2(1)	2(1)	2(1)
Senegal	1	0	0
Sierra Leone	1(1)	0	0
South Africa	2(2)	2(2)	2(2)
Sudan	2	5(1)	3
Tanzania	0	1	1
Tunisia	11(3)	5(2)	5(2)
	211(52)	130(39)	123(38)
Europe			
Austria	8	9	9
Denmark	2(2)	5(4)	5(4)
France	13	20(1)	18
Germany	31	24	24
Greece	4(2)	3(1)	3(1)
Holland	23(15)	15(7)	19(9)
Ireland	1	1(1)	1(1)
Italy	34(7)	20(5)	20(5)
Norway	13(13)	7(7)	9(9)
Portugal	1	1	1
Spain	12(5)	9(3)	8(3)
Switzerland	1	0	0
United Kingdom	55(54)	45(43)	44(42)
Yugoslavia	25	14(2)	14(2)
	223(98)	173(74)	175(76)
Far East			
Bangladesh	6	2	2
Brunei	12(8)	9(7)	9(7)
Burma	33	31(1)	29(1)
India	51(10)	57(16)	58(17)
Indonesia	91(33)	93(27)	91(25)
Japan	23(2)	20(1)	21(2)
Korea	0	0	1
Malaysia	13(13)	10(10)	11(11)
Pakistan	17	17	11
Philippines	11(2)	7	7
Taiwan	1(1)	5(1)	8(1)
Thailand	8(5)	14(7)	12(6)
	266(74)	265(70)	260(70)
Latin America			
Argentina	59(1)	84	77
Barbados	1	1	1
Bolivia	10	8	8
Brazil	93(31)	78(27)	69(23)
Chile	7(3)	6(3)	6(3)
Colombia	23(1)	13	18
Costa Rica	1	1	1
Ecuador	6(1)	5	5
Guatemala	2	1	1
Mexico	194(23)	185(28)	185(28)
Peru	21(6)	16(6)	16(6)
Trinidad	12(4)	9(4)	9(4)
Venezuela	73(19)	36(12)	34(13)
	502(89)	443(80)	430(77)
Middle East			
Abu Dhabi	44(27)	29(19)	27(19)
Bahrain	1	1	1
Dubai	2(2)	8(5)	9(5)
Egypt	40(22)	30(13)	30(13)
Iran	11(2)	20(2)	20(2)
Iraq	28	18	18
Jordan	0	3	3
Kuwait	5	6	3(1)
Oman	12(2)	13	12
Qatar	5(2)	3(2)	2(1)
Ras Al Khaimah	2(1)	0	0
Saudi Arabia	29(12)	25(13)	25(13)
Sharjah	3	0	0
Syria	15	16	16
Turkey	43	24	24
Umm Al Qaiwain	1	1	0
	241(71)	197(54)	190(54)
South Pacific			
Australia	28(8)	27(11)	32(10)
New Zealand	1	2	3(2)
Papua New Guinea	0	1	1
	29(8)	30(11)	36(12)
Totals	1,472	1,238	1,214
	(392)	(328)	(327)

Oil Companies Post Higher Earnings

Oil companies posted a modest increase in net income for the second straight quarter.

The 84 companies responding to our survey reported $8.5 billion in earnings for the third quarter, a 9.5% increase over the same period in 1982. Profit margin for the group rose from 5.1% to 5.5%.

Improved U.S. oil and chemical markets, higher crude oil production, cost-cutting and productivity gains helped Exxon earn 21% more in the third quarter.

Mobil's 42% increase is attributed to substantial gains in foreign petroleum earnings.

Lower financing expenses and corporate overhead, combined with better refining and marketing results gave Sun a 10% earnings rise.

Phillips Petroleum's net income jumped 15% due to higher crude oil production following the acquisition of General American Oil.

Lower crude oil prices and natural gas demand were blamed for the 2% drop in earnings at Shell Oil.

Texaco's net income increased 9% as a result of improved production and downstream earnings.

Standard Oil of Ohio's earnings dropped 11% due to lower income from exploration and production operations, lower crude oil prices, and higher exploration expenses.

Lower operating and administrative costs plus improved productivity paid off for Gulf Oil. Earnings increased 74%.

Standard Oil of Indiana posted

GAS COMPANIES' THIRD QUARTER FINANCIAL REPORTS

Company	Three months ending Sept. 30						Nine months ending Sept. 30						Profit Margin	
	Revenues ($MIL)			Earnings ($MIL)			Revenues ($MIL)			Earnings ($MIL)				
	1983	1982	%CHG	1983	1982	%CHG	1983	1982	%CHG	1983	1982	%CHG	1983	1982
Alabama Tennessee N.G.	28.2	29.6	-4.5	1.3	1.3	0.5	101.7	96.6	5.2	4.4	4.4	-0.1	4.3	4.5
American Nat. Resources	666.2	510.8	30.4	18.8	0.8	2250.0	2393.3	2257.5	6.0	111.1	95.3	16.6	4.6	4.2
ARKLA[1]	257.0	274.6	-6.4	7.7	12.4	-38.3	1306.5	1262.7	3.5	78.2	93.6	-16.5	6.0	7.4
Coastal Corp.	1365.9	1317.3	3.7	24.1	21.2	13.7	4308.8	4218.0	2.2	69.3	43.0	61.1	1.6	1.0
Columbia Gas	765.4	793.1	-3.5	4.5	-15.6		3486.4	3662.9	-4.8	96.9	115.4	-16.1	2.8	3.2
Consolidated Natural Gas	477.4	498.1	-4.2	5.2	6.2	-16.7	2420.8	2327.3	4.0	139.7	118.1	18.2	5.8	5.1
The El Paso Company	1124.1	1067.8	5.3	25.1	32.7	-23.4	3331.2	3175.1	4.9	62.2	72.1	-13.7	1.9	2.3
ENSERCH	886.2	968.3	-8.5	17.3	31.3	-44.9	2680.0	2874.2	-6.8	66.3	124.6	-46.8	2.5	4.3
Houston Natural Gas[2]	722.5	728.3	-0.8	26.3	59.6	-55.9	2962.4	3180.7	-6.9	190.2	262.3	-27.5	6.4	8.2
InterNorth	985.9	803.1	22.8	30.1	17.2	74.8	3403.8	2970.6	14.6	164.2	150.5	9.1	4.8	5.1
KN Energy	110.2	109.2	0.9	8.6	4.1	111.7	495.8	484.9	2.2	32.1	24.8	29.1	6.5	5.1
Mountain Fuel Supply[1]	105.7	90.8	16.4	0.4	2.3	-83.6	630.8	526.4	19.9	58.2	37.7	54.3	9.2	7.2
NOVA, An Alberta Corp.	891.0	859.0	3.7	35.0	40.0	-12.5	2880.0	2447.0	17.7	104.0	99.0	5.1	3.6	4.0
ONEOK Inc.	203.5	206.8	-1.6		7.8	-99.4	805.4	833.2	-3.3	20.8	41.6	-50.1	2.6	5.0
Pacific Lighting	1067.3	1027.1	3.9	36.6	22.5	62.9	3415.3	3208.3	6.5	110.8	83.7	32.3	3.2	2.6
Panhandle Eastern	666.0	757.1	-12.0	22.1	48.5	-54.5	2433.1	2506.2	-2.9	110.6	184.5	-40.1	4.5	7.4
Pioneer Corp.	272.6	303.4	-10.2	18.6	26.1	-28.6	779.8	835.2	-6.6	60.2	72.6	-17.0	7.7	8.7
Sonat Inc.	561.6	563.1	-0.3	50.4	48.3	4.3	1988.5	1990.1	-0.1	168.6	160.6	5.0	8.5	8.1
Southern Union Co.	202.1	223.4	-9.5	0.4	0.4	1.4	789.8	817.3	-3.4	18.5	16.1	14.9	2.3	2.0
Texas Eastern Corp.[1]	1300.8	1315.0	-1.1	56.1	43.3	29.6	5517.6	5394.2	2.3	138.1	208.1	-33.6	2.5	3.9
Texas Gas Resources	497.6	650.8	-23.5	23.5	25.7	-8.5	1929.5	2107.4	-8.4	53.1	83.9	-36.7	2.8	4.0
TransCanada Pipelines	775.2	752.0	3.1	57.4	49.6	15.7	2414.5	2567.2	-5.9	160.7	138.9	15.7	6.7	5.4
Transco Energy Co.	797.8	927.7	-14.0	30.0	30.4	-1.3	2850.0	2808.4	1.5	91.7	108.3	-15.3	3.2	3.9
Union Gas Ltd.[3]	187.1	159.7	17.2	1.5	-1.3		432.6	368.5	17.4	8.7	4.1	110.7	2.0	1.1
United Energy Resources	843.9	1287.6	-34.5	-18.1	40.6		2976.3	4237.5	-29.8	33.8	159.1	-78.8	1.1	3.8
Westcoast Transmission	193.2	151.5	27.5	15.5	17.3	-10.7	703.2	791.3	-11.1	48.6	55.0	-11.7	6.9	7.0
TOTAL	15954.4	16375.0	-2.6	498.4	572.7	-13.0	$7437.2	$7948.6	-0.9	2200.9	2557.4	-13.9	3.8	4.4

[1]Twelve months. [2]Ends July 31. [3]Six months.

Third Quarter Report

OIL COMPANIES' THIRD QUARTER FINANCIAL REPORTS

Company	Three months ending Sept. 30 Revenues ($MIL) 1983	1982	%CHG	Earnings ($MIL) 1983	1982	%CHG	Nine months ending Sept. 30 Revenues ($MIL) 1983	1982	%CHG	Earnings ($MIL) 1983	1982	%CHG	Profit Margin 1983	1982
Adams Resources & Energy	45.8	46.0	-0.3	0.4	-2.9		134.4	151.5	-11.2	-0.2	-2.7			
Adobe Oil & Gas	41.3	51.2	-19.4	5.6	5.8	-2.7	124.4	154.9	-19.7	16.7	35.3	-52.6	13.4	22.8
Amerada Hess	2352.8	2124.1	10.8	75.1	80.1	-6.2	6100.8	6277.7	-2.8	148.3	125.0	18.6	2.4	2.0
American Petrofina	565.1	540.1	4.6	23.0	12.7	81.0	1583.5	1723.3	-8.1	31.9	39.6	-19.4	2.0	2.3
American Quasar	9.2	12.9	-28.7	0.4	-0.3		29.9	41.4	-27.8	-3.3	1.2			2.9
Argo Petroleum	5.0	6.0	-16.7	-0.6	-0.6		15.0	17.0	-11.6	-2.3	-1.6			
Asamera	111.5	126.7	-12.0	4.4	4.0	7.6	298.2	350.0	-14.8	0.4	4.1	-89.6	0.1	1.2
Ashland Oil	2147.3	2269.7	-5.4	45.8	49.5	-7.6	6028.4	6700.5	-10.0	40.3	75.9	-46.9	0.7	1.1
Atlantic Richfield	6378.4	6659.4	-4.2	405.1	446.9	-9.4	19220.8	19895.4	-3.4	1128.8	1242.1	-9.1	5.9	6.2
Beard Oil	7.6	8.1	-5.6	-0.6	-0.9		23.0	26.9	-14.6	-1.8	-0.3			
Buttes Gas & Oil	31.8	36.0	-11.7	0.4	0.4	8.8	95.9	119.7	-19.9	1.8	1.1	60.4	1.9	0.9
Callon Petroleum[1]	6.9	4.9	39.6	0.3	-0.2									
Commonwealth Oil Refining	0.9	21.9	-95.9	-4.9	-5.9		18.5	288.1	-93.6	-11.5	-22.1			
Consolidated O & G	9.5	9.1	4.5	0.7	-1.5		28.2	30.6	-8.0	-0.5	-3.8			
Crown Central Petroleum	471.1	450.2	4.6	3.6	8.4	-56.9	1170.9	1279.5	-8.5	-3.9	1.5			0.1
Crystal Oil	50.7	46.8	8.3	-1.5	1.7		144.8	152.9	-5.3	-2.7	-0.2			
Diamond Shamrock	1014.5	733.2	38.4	39.7	42.3	-6.1	2848.3	2422.0	17.6	73.9	138.9	-46.8	2.6	5.7
Dorchester Gas	259.5	283.8	-8.5	6.2	3.2	93.4	1369.8	1159.1	18.2	17.7	17.8	-0.9	1.3	1.5
Dyco Petroleum	11.4	15.2	-24.6	1.8	4.1	-55.6	35.1	43.7	-19.7	6.1	11.9	-49.3	17.2	27.3
Energy Reserves Group	34.8	39.6	-12.3	2.6	0.1	1861.9	107.8	121.4	-11.2	9.1	-0.2		8.4	
ENSTAR Corp.	74.2	82.8	-10.3	7.2	11.5	-37.1	226.9	262.3	-13.5	20.4	31.0	-34.1	9.0	11.8
Equity Oil	5.6	5.6	-0.2	1.1	0.2	455.1	16.4	17.3	-5.4	3.3	1.9	75.1	20.3	11.0
Exxon	23342.0	25203.0	-7.4	1225.0	1017.0	20.5	69928.0	77165.0	-9.4	3360.0	2705.0	24.2	4.8	3.5
Felmont	20.1	18.8	7.2	4.1	3.8	6.0	59.3	58.0	2.3	10.9	10.8	1.2	18.4	18.6
Forest Oil Corp.	30.6	40.2	-23.9	2.1	4.7	-54.5	97.0	116.1	-16.4	7.5	9.9	-24.1	7.7	8.5
Freeport McMoRan	194.7	186.1	4.6	26.6	19.7	34.8	585.1	556.1	5.2	67.1	61.7	8.8	11.5	11.1
Galaxy Oil	3.6	3.8	-6.8	-0.4	-0.5		9.3	10.7	-12.7	1.3	2.0	-31.0	14.4	18.3
Getty Oil	2939.5	3109.7	-5.5	183.7	182.3	0.8	8965.0	9378.9	-4.4	255.5	518.9	-50.8	2.8	5.5
Gulf Oil Corp.	7514.0	7547.0	-0.4	276.0	159.0	73.6	21401.0	22498.0	-4.9	681.0	674.0	1.0	3.2	3.0
Hadson Petroleum	5.1	5.5	-8.8	-14.6	2.0		17.0	24.9	-31.7	-11.7	11.2			45.2
Hamilton Bros. Petroleum	42.0	37.2	12.8	1.9	4.5	-59.0	118.0	126.1	-6.5	12.8	8.9	44.2	10.8	7.0
Helmerich & Payne	51.8	89.0	-41.8	10.4	18.6	-43.8	184.7	279.6	-33.9	37.2	62.2	-40.1	20.2	22.2
Hershey Oil	2.1	1.6	36.4	0.2		662.5	5.8	5.2	10.9	0.7	0.4	73.4	11.5	7.4
Holly Corp.[2]	102.1	100.9	1.2	-0.3	-2.2		341.1	339.3	0.5	4.7	5.1	-7.6	1.4	1.5
Howell Corp.	34.9	53.3	-34.6	0.4	0.4	3.9	108.8	184.1	-40.9	0.7	1.9	-61.9	0.7	1.0
Howell Petroleum	13.9	13.2	4.8	1.9	1.5	25.6	51.9	56.9	-8.9	6.4	6.0	6.0	12.3	10.6
Inexco Oil	42.4	51.5	-17.7	3.0	2.8	9.8	128.4	170.1	-24.5	9.4	14.8	-36.6	7.3	8.7
Kerr-McGee Corp.	898.3	913.5	-1.7	39.7	56.8	-30.1	2584.4	2762.0	-6.4	101.3	136.2	-25.7	3.9	4.9
Lear Petroleum	69.1	54.4	27.1	7.0	1.5	360.6	178.2	157.3	13.3	15.7	0.3	6088.1	8.8	0.2
Louisiana Land & Exp.	313.6	259.1	21.0	24.2	19.2	25.9	877.9	873.9	0.5	75.1	53.1	41.5	8.6	6.1
Mapco Inc.	540.8	489.6	10.5	13.6	20.2	-32.7	1518.1	1452.2	4.5	38.0	54.1	-29.8	2.5	3.7
May Petroleum	10.3	7.6	35.6	0.1	-0.2		25.4	22.7	12.1	-1.6	0.8			3.4
Maynard Oil	6.2	6.8	-8.8	0.7	-0.3		21.7	26.2	-17.4	-1.0	-1.0			
MCO Holding	39.3	43.9	-10.5	0.6	3.1	-80.4	122.6	131.1	-6.5	7.7	9.9	-22.8	6.2	7.6
Mesa Petroleum	95.0	99.7	-4.7	44.2	29.4	50.2	303.9	303.7	-0.2	97.1	91.2	6.5	32.1	30.0
MGF Oil	14.0	25.1	-44.5	-19.5	-19.7		47.9	83.4	-42.6	-43.3	-21.8			
Mitchell Energy & Dev.	226.0	239.8	-5.8	20.1	23.7	-15.5	705.0	705.9	-0.1	58.4	57.9	0.9	8.3	8.2
Mobil Corp.	14200.0	15400.0	-7.8	404.0	284.0	42.3	42900.0	47600.0	-9.9	1056.0	815.0	29.6	2.5	1.7
Moran Energy	20.5	20.9	-1.5	1.0	0.5	105.6	64.4	74.3	-13.2	3.2	6.4	-50.4	4.9	8.6
Murphy Oil	565.7	641.0	-11.8	39.8	43.9	-9.4	1894.9	1983.9	-4.5	108.0	119.0	-9.2	5.7	6.0
Noble Affiliates	73.2	94.9	-22.9	5.7	17.7	-67.6	221.0	317.3	-30.3	18.7	60.4	-69.1	8.4	19.0
Norris Oil	636.6	695.6	-8.5	-205.3	87.0		2081.5	2032.6	2.4	-147.4	98.6			4.9
Occidental Petroleum	4908.0	4412.5	11.2	151.8	25.1	504.8	14413.8	12924.5	11.5	320.7	153.6	108.8	2.2	1.2
Oxoco	12941.2	10467.8	23.6	2282.6	1820.2	25.4	35350.9	26823.4	31.8	6312.9	5252.7	20.2	17.9	19.6
Pennzoil Co.	587.2	563.5	4.2	34.6	52.5	-34.0	1714.4	1739.4	-1.4	103.3	135.2	-23.6	6.0	7.8
Petro-Lewis[3]	83.9	78.7	6.6	1.6	2.8	-42.9								
Petroleum Devel.	3.2	4.0	-18.3		-0.1		11.6	10.2	13.4	0.4	-0.5		3.4	
Phillips Petroleum	3890.0	3996.0	-2.7	176.0	153.0	15.0	11316.0	11829.0	-4.3	474.0	491.0	-3.5	4.2	4.2
Prairie Producing Co.	5.0	6.5	-23.3	0.8	1.3	-35.4	14.4	20.0	-28.2	2.4	3.4	-30.5	16.4	17.0
Quaker State	226.2	245.5	-7.9	9.3	11.5	-19.4	685.1	718.8	-4.7	27.5	31.4	-12.3	4.0	4.4
Sabine Corp.	25.1	29.2	-13.9	3.2	-0.9		83.3	83.1	0.2	10.0	0.2	3997.1	11.9	0.3
Seneca Oil	3.3	4.9	-31.5	2.0	2.6	-21.5	12.2	15.7	-21.9	5.3	4.7	12.4	43.6	30.3
Shell Oil	5122.0	5090.0	0.6	449.0	442.0	1.6	14638.0	15037.0	-2.7	1084.0	1166.0	-7.0	7.4	7.8
Southland Royalty	77.7	86.8	-10.5	4.8	7.0	-30.8	239.9	274.6	-12.6	20.0	23.8	-16.0	8.3	8.7
Southwestern Energy[4]	10.8	12.2	-11.3	1.7	2.1	-19.6	70.7	59.4	19.1	13.9	11.6	19.8	19.6	19.5
Standard California	7654.0	8666.0	-11.7	509.0	459.0	10.9	21741.0	28056.0	-22.5	1187.0	952.0	24.7	5.5	3.4
Standard Indiana	7201.0	7677.0	-6.2	584.0	559.0	4.5	22083.0	22400.0	-1.4	1409.0	1411.0	-0.1	6.4	6.3
Standard Ohio	2995.0	3317.0	-9.7	435.0	487.0	-10.7	8862.0	10313.0	-14.1	1188.0	1415.0	-16.0	13.4	13.7
Statex Petroleum[5]	3.0	2.5	22.7	-0.5			9.5	9.5	-0.6	-1.2	1.4			14.8
Sun Co.	3770.0	3950.0	-4.6	167.0	152.0	9.9	11290.0	12160.0	-7.2	392.0	386.0	1.6	3.5	3.2
Superior Oil	469.7	499.8	-6.0	117.6	39.1	200.9	1345.8	1536.4	-12.4	178.0	199.4	-10.7	13.2	13.0
Tenneco	3433.0	3631.0	-5.5	144.0	182.0	-20.9	10608.0	11083.0	-4.3	475.0	531.0	-10.5	4.5	4.8
Tesoro Petroleum	989.4	636.9	55.3	18.1	12.6	43.7	2826.6	2469.2	14.5	48.4	48.1	0.6	1.7	1.9
Texaco Inc.	10567.0	11833.0	-10.7	331.0	303.0	9.2	30623.0	36312.0	-15.7	977.0	975.0	0.2	3.2	2.7
Texas American Energy	31.3	38.7	-19.0	-2.1	-1.5		148.1	153.5	-3.6	-0.8	-1.4			
Tosco Corp	539.4	902.0	-40.2	1.4	22.1	-93.7	2013.1	2552.2	-21.1	-240.2	129.4			5.1
Total Petroleum N.A.	540.9	553.2	-2.2	11.3	8.3	36.6	1551.7	1649.3	-5.9	-35.1	7.5			0.5
Union California	2730.0	2770.0	-1.4	180.2	212.8	-15.3	8010.0	8160.0	-1.8	447.9	578.9	-22.6	5.6	7.1
Universal Resources	10.9	13.9	-21.8	-0.7	1.5		34.7	45.5	-23.8	-2.0	6.7			14.8
Wainoco Oil	11.0	11.5	-4.8	0.2	-3.3		33.9	37.8	-10.4	1.4	-9.7		4.1	
Wilshire Oil of Texas	2.5	3.4	-27.6	0.4	0.4	0.7	7.5	9.8	-23.0	1.6	1.1	51.3	21.3	10.8
Wiser Oil	12.3	13.1	-5.7	2.2	2.2	-0.8	40.0	40.9	-2.2	8.6	9.4	-8.9	21.4	23.0
Woods Petroleum	16.9	19.8	-14.6	2.5	4.9	-48.3	52.1	61.0	-14.5	10.2	16.5	-38.1	19.6	27.1
Worldwide Energy	18.0	15.0	19.4	1.0	0.6	63.4	54.0	41.4	30.3	-0.4	-0.4			
TOTAL	134561.2	138577.4	-2.9	8327.1	7595.0	9.6	395051.8	417356.3	-5.3	21720.4	21199.2	2.5	5.5	5.1

[1]Ends Aug. 31. [2]Ends April 30. [3]Year ends June 30. [4]Twelve months. [5]Ends July 31.

5% higher net income due to improved refined product margins and increased earnings from chemical operations.

Lower crude oil prices, higher oil and gas production expenses, and lower petroleum product margins were responsible for Atlantic Richfield's 9% drop in net income.

Occidental Petroleum's third quarter earnings jumped 505% as a result of the acquisition of Cities Service.

Improved refining and marketing margins and lower exploration expenses combined for an 11% increase at Standard Oil of California.

Getty Oil's net income was $184 million compared to $182 million in the third quarter of 1982.

Lower sulphur and natural gas volumes translated into a 34% decline in net income for Pennzoil.

Diamond Shamrock's earnings dropped 6% as strong competition in refined product markets kept a lid on profit margins.

Operating income from all three segments of American Petrofina's operations improved in the third quarter as earnings rose 81%.

Declines in oil and gas operations and contract drilling and trucking subsidiaries caused Noble Affiliates' net income to plunge 68%.

Louisiana Land and Exploration had fewer dry holes plus reduced losses from mining operations. Earnings increased 26%.

Beard Oil reported a net loss of $635,000 in the third quarter. Earnings were adversely affected by a decline in oil and gas sales and drilling and well servicing revenues.

Continued pressure on refined product margins was cited for the 57% decline at Crown Central Petroleum.

Moran Energy's higher production levels resulted in an increase of 106%.

The 26 gas companies in our survey posted a 13% decline in net income in the third quarter. Profit margin for the group fell from 4.4% to 3.8%.

Consolidated Natural Gas posted a 13% decline in earnings due to depressed conditions in the manufacture and marketing of equipment.

Southern Union reported a $373,000 loss, as oil refining and marketing continued to be depressed.

Lower earnings and sales volume resulted in net loss of $18 million for United Energy Resources.

The El Paso Company's net income fell 23% due to lower production volumes and reduced sales to their interstate pipeline.

Improvement in the natural gas pipeline business helped Texas Eastern earn 30% more in the third quarter.

Union Gas earned $1.5 million compared to a net loss in 1982. Increased gas sales and higher customer rates were the main contributors.

Sonat posted a 4% increase due to adjustments relating to settlements of outstanding regulatory matters and tax issues.

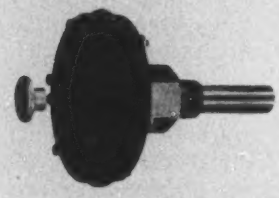
Improvement in Coastal's refining, marketing, and natural gas systems segments resulted in 14% higher earnings.

Columbia Gas System earned $4.5 million compared to a $15.6 million loss in 1982. ■

COMPRESSOR COMPANIONS...

...DESIGNED TO MONITOR YOUR COMPRESSOR OPERATION.

HIGH SCRUBBER LEVEL DUMP VALVE

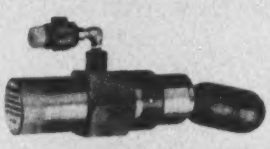


MODEL D.V. — 1500

Murphy's new dump valve (D.V.-1500, operates at 20-50 p.s.i. (138-345 kPa) with vessel pressure to 1500 psi (10.3 MPa). Designed to mount into the scrubber 1" NPT. The valve has a manual operator and is freeze proof. Send coupon for complete literature.

USER NET PRICE $150.00

HIGH SCRUBBER LEVEL DUMP VALVE OPERATOR



MODEL L-1200-N DVO

Senses dangerous high scrubber liquid level and signals the Dump Valve to operate. Rated 1500 p.s.i., this Murphy-Nu-Matic Monitor operates on control air pressure of 20 to 60 p.s.i. and detects rising liquids with sp. gr. as low as 0.50. (standard = 0.68).

USER NET PRICE $235.00

VIBRATION AND SHOCK SWITCH

MODEL VS-2 EX

MODEL VS-2 EX detects excessive shock in 3 planes of motion and is housed in an explosion-proof enclosure, CSA and UL listed Class 1, Gr. C & D, Div. 1. The sensitivity is externally adjustable and, when tripped gives a "TATTLETALE®" indication. It is also furnished with ½" conduit connection.

USER NET PRICE $100.00

ROUTE TO: _____

Ad Ref. Number 328-1/4EMR

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